
Weekly Report / MEI Honghui

7.3-7.9

VisComposer Paper

ANOTHER IDEA (AS FOCUS OF THE PAPER)

Treat as a tool for cooperation.

Cooperation of developer and user:

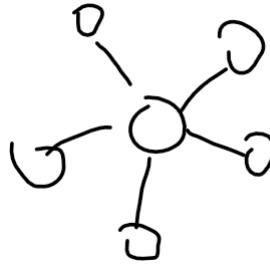
- developer build tool, user utilize it
- single-direction
- a conventional interface/interaction/data model/visualization model/task model

Our work

- a double-direction cooperation
 - developer→user
 - ◆ bottom-up process
 - ◆ write modules→assemble modules
 - user→developer
 - ◆ top-down process
 - ◆ assign task→write function
 - ◆ need substitution when leaving blank (puppet)
 - a default/random value
 - notation/leave message
 - direct drawing
 - convention
 - ◆ scenegraph
 - ◆ what for data model?
 - ◆ what for interaction design?
 - ◆ what for task description?

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- multilateral cooperation

- ◆ boss (ask for task)
- ◆ domain expert
- ◆ designer
- ◆ programmer
- ◆ data analyst
- ◆ data provider



- **KEY POINT**

- the conventional model
- the way to leave blank and fill blank

Paper Read

[1] M. Sun, P. Mi, C. North, and N. Ramakrishnan, “BiSet: Semantic Edge Bundling with Biclusters for Sensemaking,” *IEEE Trans. Vis. Comput. Graph.*, vol. 22, no. 1, pp. 310–319, 2016.

A bicluster and transition visualization. It is further used in analyzing CNN in another paper.

[2] P. Pirolli, S. Card, P. Alto, and E. Schemas, “The Sensemaking Process and Leverage Points for Analyst Technology as Identified Through Cognitive Task Analysis.”

Mental (sensemaking) model. However, not quite understood.

[3] P. Mi, “GPU Based Methods for Interactive Information Visualization of Big Data GPU Based Methods for Interactive Information Visualization of Big Data,” 2015.

A long book, not carefully read.

[4] T. Blascheck, M. John, K. Kurzhals, S. Koch, and T. Ertl, “VA2: A Visual Analytics Approach for // Evaluating Visual Analytics Applications,” *IEEE Trans. Vis. Comput. Graph.*, vol. 22, no. 1, pp. 61–70, 2016.

VA of HCI (eye tracking/click/so on) happened in a VA task.

[5] Z. Liu, J. Kihm, J. Choo, and S. Member, “Combining Computational Analyses and Interactive Visualization for Document Exploration and Sensemaking in Jigsaw,” vol. 19, no. 10, pp. 1646–1663, 2013.

[6] Y. Onoue, N. Kukimoto, and N. Sakamoto, “Minimizing the Number of Edges via Edge Concentration in Dense Layered Graphs,” vol. 22, no. 6, pp. 1652–1661, 2016.

An algorithm.

TODO Next Week

- VisComposer
 - Implement new features
 - Write paper